

GM

WASHTECH[®]
PROFESSIONAL WASH SYSTEMS



Operator Manual

GM High Performance Glasswasher



WARNING

Before installation and commissioning, you must read the safety instructions and warnings carefully and all the warning labels attached to the equipment.



IMPORTANT

Failure to comply (even partially) with the instructions given in this manual will invalidate the product warranty and relieves the manufacturer of any responsibility.



IMPORTANT

The alteration of machine operation, design or the replacement of parts not approved by the manufacturer may void warranties and approvals.

We have checked that the contents of this document correspond to the model described. There may be discrepancies nevertheless, and no guarantee can be given that they are completely identical. The information contained in this document is reviewed regularly and any necessary changes will be included in the next edition. We welcome suggestions for improvement.

Document subject to change without prior notice.

Information supplied in this manual is copyright. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical without the express permission of the author / publisher.



Distributed In
Australia by

MOFFAT®

740 Springvale Road, Mulgrave 3170, Victoria, Tel 03 9518 3888 Fax 03 9518 3818

Service 1 800 622 216
Parts 1 800 337 963

Safety Instructions



WARNING

Equipment contains dangerous voltages and can be hazardous if installed or operated incorrectly. Non-compliance with **Warnings** or failure to follow the instructions contained in this manual can result in loss of life, severe personal injury or serious damage to property.

Installation

- ◆ Use qualified, skilled personnel
- ◆ Follow installation instructions
- ◆ Connect to correct voltage and supply current
- ◆ Provide fully accessible Electrical Isolation Switch & water supply valves

Training and Supervision

- ◆ Read and Understand the Operating instructions and train all staff
- ◆ This appliance must not be operated by children or infirm persons
- ◆ Machine panels must only be removed by suitably qualified and trained personnel – internal hazards include live electrics and very hot surfaces
- ◆ This appliance is not intended for use as a stepladder

Hot Surfaces

- ◆ Some surfaces may be hot or very hot

Chemicals

- ◆ Commercial dishwashing detergents are hazardous – handle with care
- ◆ Read and follow the safety information found on the labels of detergent containers and Material Safety Data Sheets
- ◆ Use protective eyewear and clothing if decanting containers

Hot Water

- ◆ Do not put hands in wash water which may be over 60°C and contain hazardous caustic detergent
- ◆ Rinse water can be over 90°C
- ◆ Door safety switches are designed for emergency use only

Cleaning

- ◆ Do not hose down the machine or splash water over the exterior
- ◆ Watch for broken glass etc when cleaning the inside of the machine

Power Cord Replacement

- ◆ If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person in order to avoid a hazard
-

Installation



WARNING

Installer must be suitably qualified and ensure compliance with all local codes and standards including AS/NZS 3500.1.



Failure to comply even partially with installation instructions may void the warranty.

Positioning

Unpack machine, check for damage and complete delivery. Install machine on sound waterproof self-draining floor and use adjustable feet to level machine. Adjacent surfaces should be heat resistant and moisture proof, especially benchtop lower surfaces above undercounter machines. Allow room for detergent to one side of machine or in adjacent cupboard. 20litre container requires about 450H x 250W x 350D, but smaller containers are available from many suppliers.

Water Supply

Hot water temperature	65°C ± 5°C
Pressure	200-350 KPa = 30 - 50 Psi.
Connection	20 mm (3/4" BSP) male
Flow rate minimum	20 litres per minute
Hot water consumption	2 litres per cycle approximately
Cold water supply	same pressure and flow rate as above
Backflow prevention	DCV = Dual Check Valves supplied with machine

Pressure limiter may be required. Don't use small diameter plastic supply lines. FLUSH supply line before connection. Connect supplied DCV to water supply. Poor quality supply or excessive water hardness may affect performance or damage machine – filtration and/or softening is recommended. Optional rinse booster pump available for very low pressure.

Waste

Drain pump is fitted – refer installation diagram.

Power

Electrical supply required is 15A 240V 50Hz via switched outlet adjacent to machine. Cord set including 15A plug supplied.

Detergent

Insert detergent pump inlet hose into container of commercial low foam detergent. The detergent hoses will be primed during filling of the wash tank. Detergent pump is set to operate for 12 seconds at the beginning of the wash cycle. This time can be adjusted in User Settings of the Touch Pad controller. Press both Up and Down keys on the Touch Pad for a few seconds to access the User Setting menu and follow onscreen instructions. Commercial detergents can be hazardous – read instructions and handle with care.

Rinse Aid

Insert injector inlet hose into rinse aid container. Check amount of fluid rising up inside pipe during pulse at start of rinse cycle. Rotate Adjusting screw clockwise to reduce flow and anticlockwise to increase flow.

Installation Checklist

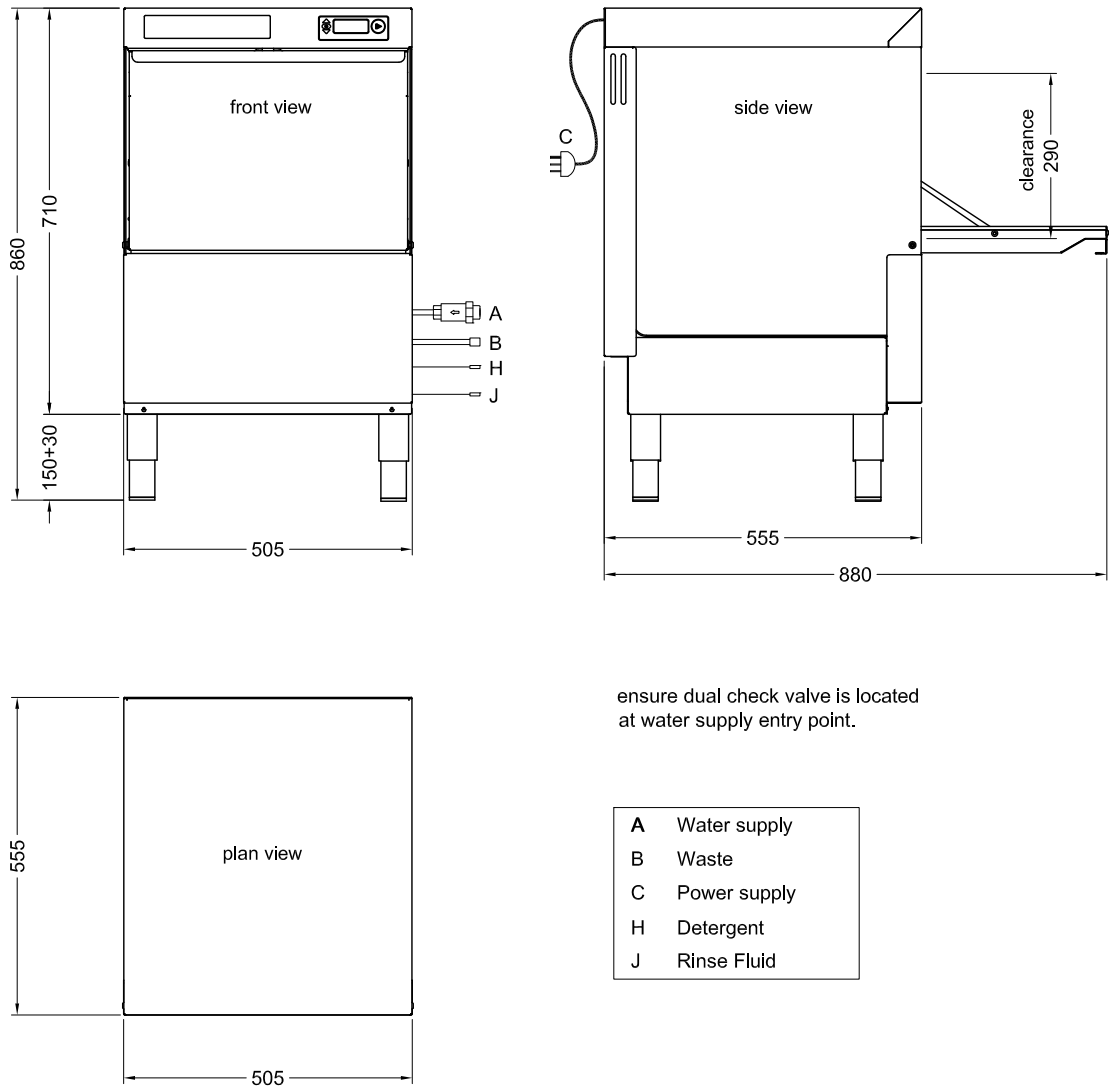
Complete attached Installation Checklist to ensure machine is installed and running correctly, and operator is familiar with operating procedures.

Troubleshooting

If machine doesn't fill after switching on power, check and ensure that hot water supply tap is open, water supply pressure is not below specification and Dual Check Valve is correctly installed (arrows on the dual check valve's body specify water flow direction).

GM INSTALLATION DIAGRAM

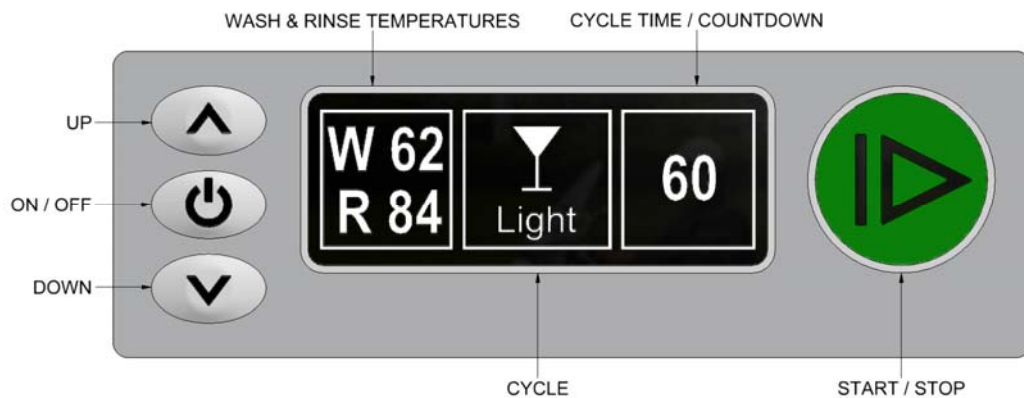
GM INST 19-07-13 3 A



Installation Checklist

CHECK	OK / NOTES				
Delivery					
Supplied complete	<input type="checkbox"/> no transit damage				
Position					
Level and stable	<input type="checkbox"/> on sound, waterproof, self draining floor				
Water					
Isolator valve fitted	<input type="checkbox"/> Accessible, all fittings sound, no leaks				
DCVs fitted (Washtech only)	<input type="checkbox"/> Correct direction				
Temperature	<input type="checkbox"/> $65 \pm 5^{\circ}\text{C}$				
Flow rate	<input type="checkbox"/> Minimum 20 litres per minute				
Pressure	<input type="checkbox"/> 200-350 kpa, limiter fitted if above this range				
	<input type="checkbox"/> Booster fitted if below this range				
Cold water when required	<input type="checkbox"/> Pressure not above 350 kpa				
Hardness	<input type="checkbox"/> Filter or softening if required				
Power					
Isolating switch	<input type="checkbox"/> Fitted, functional and accessible				
Supply as specified	<input type="checkbox"/> Voltage, current, circuit breaker				
Waste					
Usually 40 mm	<input type="checkbox"/> Sound, no leaks				
Air gap on pumped drain	<input type="checkbox"/>				
Chemicals					
	product name	container	no leaks	primed	conc.OK
Detergent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rinse Aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Machine operation					
Run several cycles	<input type="checkbox"/>				
Confirm correct operation	<input type="checkbox"/>	Including correct fill levels			
Operator training					
Confirm Operator has copy of Operator Manual and is familiar with procedures					
Start-up	<input type="checkbox"/>	Model / Serial		<input type="checkbox"/>	
Pre-rinse and racking	<input type="checkbox"/>	Owner		<input type="checkbox"/>	
Machine operation	<input type="checkbox"/>	Location		<input type="checkbox"/>	
Drain	<input type="checkbox"/>	Technician		<input type="checkbox"/>	
Clean	<input type="checkbox"/>	Date		<input type="checkbox"/>	
Shut-down	<input type="checkbox"/>	Signed		<input type="checkbox"/>	

GM Operation



Start up

Fit wash pump filter and upstand, and shut door.
Turn wall power switch on and press machine ON/OFF Button for 1 second.
START/STOP button glows white and machine fills automatically.
Machine starts heating when wash tank is full.
START/STOP button glows orange while heating.
START/STOP button glows green when machine ready for operation.

Operation

Select Light, Medium, Heavy or Manual cycle by pressing UP or DOWN keys.
Light, Medium and Heavy cycles correspond to 60, 120 and 180 seconds cycles accordingly.
Load rack into machine and shut door.
Press START/STOP button to start the cycle.
The START/STOP button glows red while machine operates.
Pressing the START/STOP button during operation will terminate the cycle.
When red light goes out, cycle is complete.
If Manual cycle is selected machine will continue washing until START/STOP button is pressed again. The following rinse will complete the cycle.
Remove rack. Close door.

NOTES:

Cold Rinse is set by default to operate at the end of cycle. Cold Rinse can be switched off in User Settings of the Key Pad controller. Press both UP and DOWN keys on the Key Pad for a few seconds to access the User Setting menu and follow onscreen instructions.

The cycle time might be longer than specified if water supply temperature is below required.

Shut down every night

Select Drain cycle by pressing UP or DOWN keys.
Remove drain upstand, close door and press START/STOP button.
Machine will drain for 100 seconds with a cleaning rinse in a middle of cycle.
When drain & clean are complete machine will go in to standby mode.
Remove filter and rinse clean.
Replace filter and drain upstand.

Dishwashing Procedures

for best results

Note: these are general instructions to assist in getting the best performance from Washtech dishwashers – some comments and / or illustrations may not apply to every unit.

Installation



Read the Operator Manual. Correct installation, including an adequate supply of water at the correct temperature and pressure is essential for effective operation of your machine. Refer installation instructions for details. Drain hose outlet height is important on some models. Always install on a sound self-draining floor. Water softening is recommended in hard water areas - especially for glasswashing

Pre-rinsing



Pre-scraping of dishes is required by hygiene regulations. The best method is to pre-rinse with a pre-rinse spray unit - or alternatively by scraping or dunking in water.



Cutlery Procedures

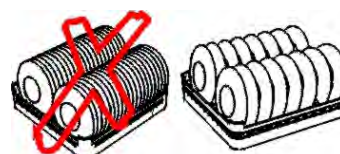


Pre-soak cutlery in warm water, preferably containing cutlery pre-soak compound - refer your chemical supplier.

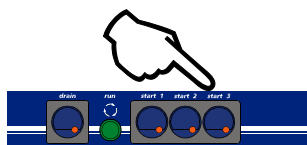
Do not overfill cutlery containers. Cutlery should be loose with handles down. Sort after washing rather than before. Cutlery of only one type nests together and obscures wash water.

Racking Procedures

Do not overload racks, minimize the overlap of crockery. Cycle times are short and water consumption per cycle low - so there is no advantage in overloading racks.



Cycle Times



For multi-cycle machine use the longest cycle whenever possible. Note that water consumption does not increase with longer cycles. Only choose shorter, faster cycles when necessary.



Detergent

Use of correct type and quantity of low foaming detergent is essential to machine performance. Ask a professional chemical supplier to recommend the best types and concentrations of detergent, rinse fluid and cutlery soak for your situation. Note that detergents are hazardous. Poorly formulated detergents, particularly those containing chlorine, can shorten the life of dispensing systems and the machine itself.



Dishwashing Procedures

for best results

Drying

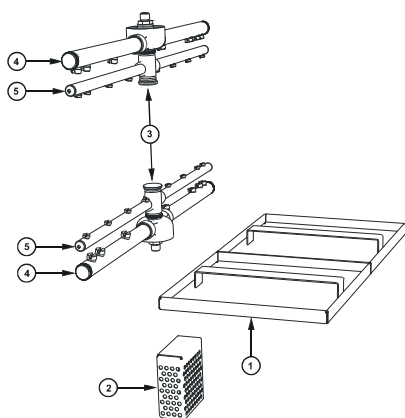


Single tank commercial dishwashers do not have a drying cycle. However, the machines do rinse at high temperatures which promote fast drying particularly when drying agents are used. We recommend prompt removal of the rack from the machine - leave the rack on the bench for 2 to 3 minutes before emptying. This time will be reduced with correct use of drying agent (rinse fluid) which reduces water surface tension and allows water to drain quickly from washware. For advice on drying agents and injectors refer to your chemical supplier.

Daily Cleaning

It is essential that the machine is drained and cleaned at the end of each day. Drain the machine then remove, clean and replace filters as per the operating instructions. Regularly check the wash and rinse jets and clean them if necessary – see below.

Regular Cleaning



Remove scrap trays① and wash pump inlet filter②, where fitted, and rinse or brush clean.

Remove wash and rinse arms by undoing the central thumbscrews③. If necessary, remove the end cap screws④ from the wash arms and the end screws⑤ from the rinse arms and flush the arms with water and/or use a toothpick or paperclip to clear jets.

Note: arms and filters vary with model and may appear different from this illustration e.g. those models with plastic wash arms have removable jets for ease of cleaning

Regular Servicing

Regular servicing is essential for optimum performance and long machine life. Maintenance is recommended at least once every six months – especially when chemical injectors are fitted.

Please contact Moffat or your Authorised Service Provider to organize regular servicing of the dishwasher - discuss a Preventative Maintenance Agreement.

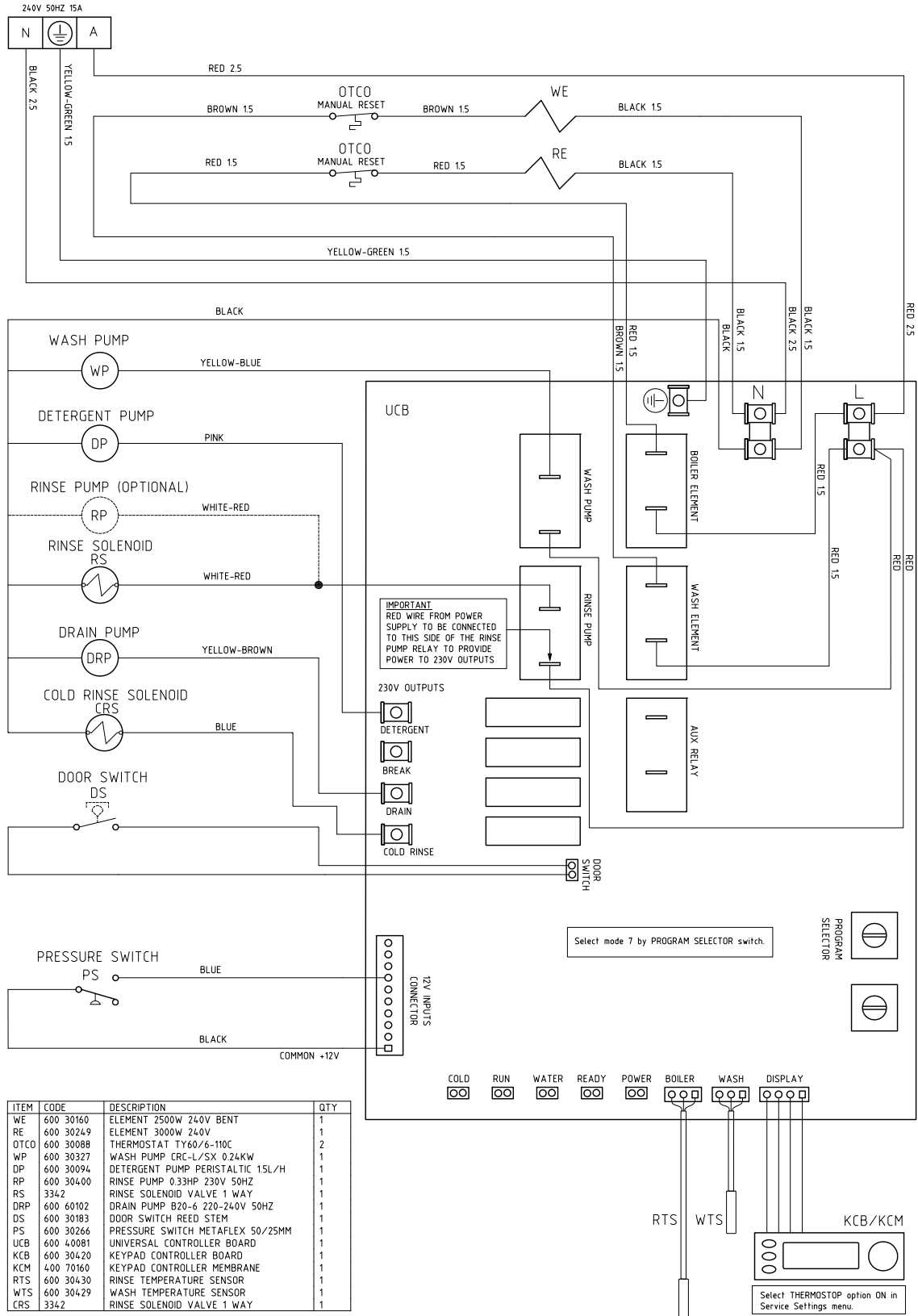


Note: these are general instructions to assist in getting the best performance from Washtech dishwashers – some comments and / or illustrations may not apply to every unit.

GM7 WIRING DIAGRAM

060247 07/08/13 3 A

POWER SUPPLY TERMINAL



Notes



www.moffat.com.au

Distributed in Australia
by Moffat Pty Limited

P 03 9518 3888
F 03 9518 3818
E vsales@moffat.com.au

740 Springvale Rd
Mulgrave 3170
Victoria

Service 1 800 622 216
Parts 1 800 337 963



ISO9001

All Washtech products are designed and manufactured by Washtech using the internationally recognised ISO9001 quality management system, covering design, manufacture and final inspection, ensuring consistent high quality at all times.

In line with policy to continually develop and improve its products, Washtech reserves the right to change specifications and design without notice.

© Copyright Washtech 2013